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(54) Title: METHOD AND SYSTEM FOR SEPARATION AND PURIFICATION OF AT LEAST ONE NARCOTIC ALKALOID USING REVERSE PHASE PREPARATIVE CHROMATOGRAPHY

(57) **Abstract:** An apparatus and method for separating at least one narcotic alkaloid that includes loading a stationary phase media into a high performance preparative liquid chromatography column, feeding a crude narcotic alkaloid solution into the chromatographic column, applying a mobile phase to the chromatographic column, and recovering a narcotic alkaloid eluate from the chromatographic column. The narcotic eluates are collected and treated separately from each other. Each separated alkaloid, however, has sufficient recovery and purity.

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